

IN THE CLAIMS:

1. (Currently Amended) An apparatus for clamping a reference surface of an object to a reference surface of a support member, comprising:
at least one clamping member having means for applying compressive force between a first contact surface and a second contact surface, said first contact surface being in contact with a support surface of said support member, said support surface of said support member being opposite said reference surface of said support member;
each of said clamping members having a base member with said second contact surface in contact with a support surface of said object, said support surface of said object being opposite said reference surface of said object;
each of said clamping members having a tension member passing through holes in said support member and said object for applying tension force to said base member and for supporting said object when said force is released, said tension member being adapted to maintain a tensile force and having a cross section adapted such that said tension member exerts transverse force on said object less than a threshold amount in response to transverse displacements of said clamping member such that the deviation from an adjusted position is within a relevant error budget.

2. (Currently Amended) An apparatus according to claim 1, in which said means for applying compressive force is a spring and said first contact surface is a surface of said spring.

3. (Original) An apparatus according to claim 1, further comprising release means for releasing compressive force.

4. (Original) An apparatus according to claim 3, in which said release means comprises a lever pressing against said means for applying compressive force.

5. (Original) An apparatus according to claim 1, in which support means support the object when the compressive force is released.

6. (Original) An apparatus according to claim 2, in which support means support the object when the compressive force is released.

7. (Original) An apparatus according to claim 1, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

8. (Original) An apparatus according to claim 2, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

9. (Original) An apparatus according to claim 3, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

10. (Original) An apparatus according to claim 4, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

11. (Currently Amended) An apparatus for clamping a reference surface of an object to a reference surface of a support member in a vacuum, comprising:
at least one clamping member having means for applying compressive force between a first contact surface and a second contact surface, said first contact surface being in contact with a support surface of said support member, said support surface of said support member being opposite said reference surface of said support member;
each of said clamping members having a base member with said second contact surface in contact with a support surface of said object, said support surface of said object being opposite said reference surface of said object, such that said base member supports said object when clamped;
each of said clamping members having a tension member passing through holes in said support member and said object for applying tension force to said base member and for supporting said object when said force is released, said tension member being adapted to maintain a tensile force and having a cross section adapted such that said tension member

exerts transverse force on said object less than a threshold amount in response to transverse displacements of said clamping member such that the deviation from an adjusted position is within a relevant error budget;

release means for releasing tension in said tension member, whereby said base member moves away from said support member, thereby opening a gap between said object and said support member; and

an actuator passing through a vacuum wall into said vacuum connected to said clamping member for applying and releasing force to said clamping member.

12. (Currently Amended) An apparatus according to claim 11, in which said means for applying compressive force is a spring and said first contact surface is a surface of said spring.

13. (Original) An apparatus according to claim 11, further comprising release means for releasing compressive force.

14. (Original) An apparatus according to claim 13, in which said release means comprises a lever pressing against said means for applying compressive force.

15. (Original) An apparatus according to claim 11, in which support means supports the object when the compressive force is released.

16. (Original) An apparatus according to claim 12, in which support means supports the object when the compressive force is released.

17. (Original) An apparatus according to claim 11, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

18. (Original) An apparatus according to claim 12, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

19. (Original) An apparatus according to claim 13, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.

20. (Original) An apparatus according to claim 14, in which said tension member is a shaft having a broader diameter at the top and bottom and a smaller diameter in a central area.